

## ABSTRACT

A process for forming a ceramic object using selective laser sintering of ceramic powder is provided. The chemical composition and size distribution of the powder may be varied between various regions of the object, and the temperature achieved by laser heating may be varied between regions to achieve the desired degree of densification. In one embodiment, a ceramic mold (1) is formed in to have an envelope portion (4) and a core portion (7) with differing properties using a fast prototyping laser sintering process.